

VIRGIN RIVER BASIN

1

09405500 NORTH FORK VIRGIN RIVER NEAR SPRINGDALE, UT

LOCATION--Lat 37°12'35", long 112°58'40", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 41 S., R. 10 W., Washington County, Hydrologic Unit 15010008, Zion National Park, on right bank 0.2 mi downstream from point of diversion of Springdale Canal, 0.5 mi downstream from Pine Creek, and 1.9 mi northeast of Springdale.

DRAINAGE AREA.--344 mi².

PERIOD OF RECORD.--May 1913 to June 1914, June to November 1923, April to June, August and September 1925 (fragmentary), October 1925 to current year. Published as Zion Creek near Springdale 1913-14, and as Mukuntuweap River near Springdale 1923 and 1925-32. Published as combined flow of river and Springdale canal 1932-88.

GAGE.--Water-stage recorder. Crest-stage gage since May 31, 1995. Elevation of gage is 3,970 ft above NGVD of 1929, from topographic map. May 13, 1913 to June 30, 1914, nonrecording gage at site 3.8 mi downstream at different datum. June 6, 1923 to September 1925, nonrecording gage at site 0.8 mi upstream. November 3, 1932 to December 14, 1949, nonrecording gage 50 ft downstream at datum 0.34 ft higher.

REMARKS.-- Records good except for estimated daily discharges, which are poor. Some regulation of low flows by Kolob Reservoir (20 mi upstream) and several diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,150 ft³/s, Dec 6, 1966, gage height, 12.98 ft, from rating curve extended above 2,000 ft³/s on basis of drift measurement at gage height, 6.7 ft, and slope-area measurement at gage height, 10.25 ft; minimum estimated, less than 5.0 ft³/s, Apr 12, 1995, result of landslide 1.0 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 9	0145	*710	*3.19				

Minimum daily discharge, 24 ft³/s, July 12, 13, 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	43	49	42	49	57	68	84	50	27	48	32
2	82	43	45	42	49	60	73	82	47	27	75	54
3	88	43	44	41	43	57	59	101	45	27	46	37
4	48	43	42	44	42	62	51	89	43	26	41	35
5	45	43	43	45	48	59	56	83	42	26	38	34
6	43	43	46	46	39	55	49	80	41	27	37	38
7	41	44	45	48	38	58	50	84	41	28	42	38
8	40	134	42	48	38	60	48	90	41	26	44	34
9	38	264	39	49	38	63	48	80	41	26	43	32
10	36	84	44	53	41	64	55	73	38	25	41	32
11	35	53	43	55	47	66	65	75	38	25	39	30
12	35	49	40	49	57	67	78	79	38	24	37	31
13	35	48	43	48	125	69	89	105	37	24	38	30
14	35	47	43	47	67	72	91	102	36	e24	38	29
15	35	46	48	48	57	74	98	136	36	e24	42	29
16	35	44	46	45	52	147	71	165	36	e25	68	28
17	35	46	53	48	59	93	84	145	34	29	79	28
18	35	44	49	48	53	60	75	120	34	40	40	28
19	35	44	38	48	48	52	69	111	33	40	40	29
20	37	46	40	47	51	54	68	99	33	39	37	29
21	37	45	43	46	48	55	68	90	32	40	36	28
22	40	45	42	47	47	54	67	85	32	41	44	27
23	42	44	42	48	45	59	84	77	32	46	41	27
24	41	44	41	48	47	63	74	73	31	46	37	26
25	42	44	36	48	97	60	84	72	30	52	37	26
26	41	39	34	47	72	61	92	67	30	46	35	26
27	52	39	34	47	64	61	100	61	30	44	34	27
28	47	41	37	48	66	52	100	57	29	44	32	26
29	45	45	40	47	---	52	94	55	30	46	35	26
30	44	49	41	47	---	53	89	53	29	55	39	27
31	44	---	41	48	---	58	---	51	---	59	34	---
TOTAL	1,329	1,686	1,313	1,462	1,527	1,977	2,197	2,724	1,089	1,078	1,317	923
MEAN	42.9	56.2	42.4	47.2	54.5	63.8	73.2	87.9	36.3	34.8	42.5	30.8
MAX	88	264	53	55	125	147	100	165	50	59	79	54
MIN	35	39	34	41	38	52	48	51	29	24	32	26
AC-FT	2,640	3,340	2,600	2,900	3,030	3,920	4,360	5,400	2,160	2,140	2,610	1,830

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

VIRGIN RIVER BASIN

09405500 NORTH FORK VIRGIN RIVER NEAR SPRINGDALE, UT—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1989 - 2003
ANNUAL TOTAL	14,619	18,622	88.7
ANNUAL MEAN	40.1	51.0	207
HIGHEST ANNUAL MEAN			1993
LOWEST ANNUAL MEAN			2002
HIGHEST DAILY MEAN	264	Nov 9	1,140
LOWEST DAILY MEAN	22	Jun 26	22
ANNUAL SEVEN-DAY MINIMUM	22	Aug 12	22
ANNUAL RUNOFF (AC-FT)	29,000	36,940	64,290
10 PERCENT EXCEEDS	55	82	152
50 PERCENT EXCEEDS	40	45	53
90 PERCENT EXCEEDS	23	30	33

e Estimated

